DIST.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
18	TEXAS		1
DIST.	COUNTY	STATE PROJ. NO.	CONTROL NO.
18	ROCKWALL	451-4-3	R-913

Date work started: September 17, 1969
Date work completed: September 18, 1970
Field Change No.1 - Installed 8" Reinforced C.C.M. Pipe (Asphalt Dipped) Left
Station 28 to Station 32+52 = 452 ft.

Control C-451-4-3

R-913

64

STATE OF TEXAS
STATE HIGHWAY DEPARTMENT

PLANS OF PROPOSED STATE HIGHWAY IMPROVEMENT

STATE PROJECT. C-451-4-3

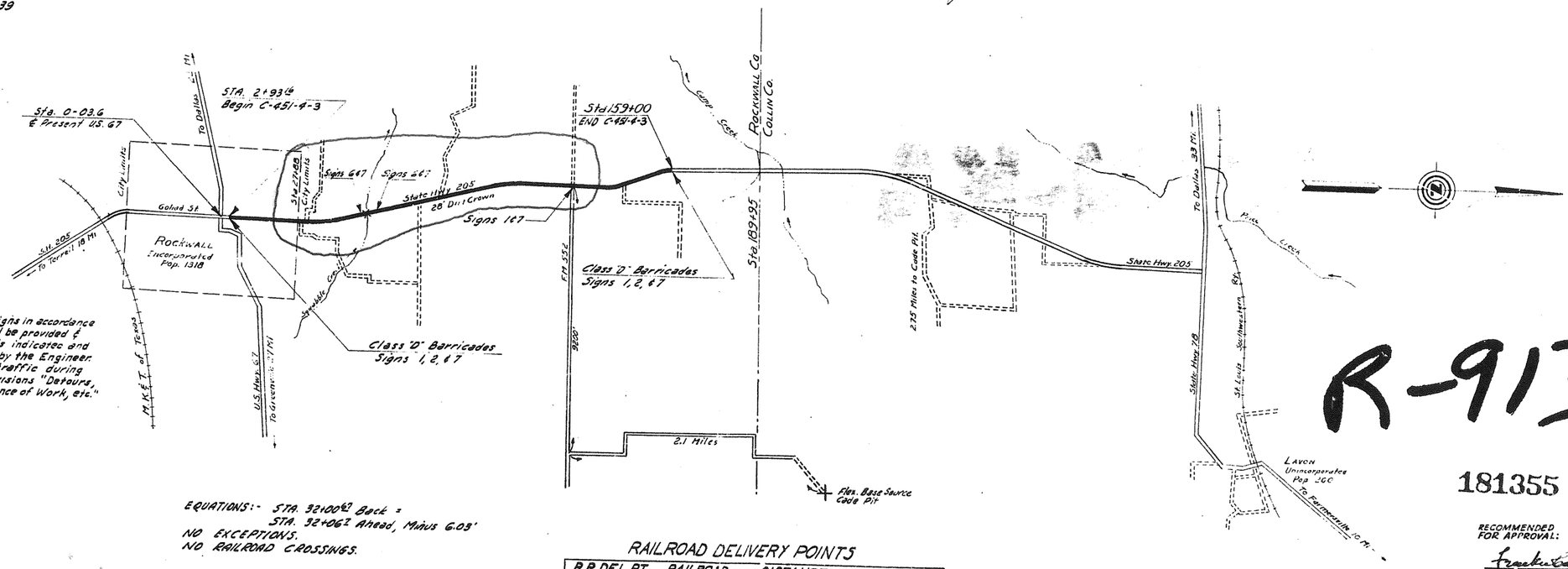
SCALES: PLAN: 1 IN. = 100 FT
PROFILE: 1 IN. HOR. = 100 FT., 1 IN. VERT. = 10 FT.
CROSS-SECTIONS: 1 IN. HOR. AND VERT. = 5 FT.
OTHERS AS NOTED.

NET LENGTH OF PROJECT
ROADWAY = 15,475.81 FT. = 2.931 MI.
BRIDGES = 125.0 FT. = 0.023 MI.
TOTAL = 15,600.81 FT. = 2.954 MI.

ROCKWALL COUNTY
FROM PRESENT HWY. U.S. 67 IN ROCKWALL, NORTH, TO 0.6 MI. SOUTH OF COLLIN COUNTY LINE

GRADING, DRAIN. STRUCT., FLEXIBLE BASE, ASPHALT STABILIZATION, & DOUBLE ASPHALT SURFACE TRTM'T.

INDEX OF SHEETS



Standard Barricades & Warning Signs in accordance with S.H.D. Standard BW-46 shall be provided & erected by the Contractor at points indicated and at such other points as directed by the Engineer. The road shall be kept open to traffic during Construction. See Special Provisions "Detours, Barricades, Warning Signs, Sequence of Work, etc."

EQUATIONS:- STA. 32+00.62 Back = STA. 32+06.2 Ahead, Minus 6.03'
NO EXCEPTIONS.
NO RAILROAD CROSSINGS.

RAILROAD DELIVERY POINTS

R.R.DEL.PT.	RAILROAD	DISTANCE	CAPACITY
Rockwall	M.K.&T.	1 Mile	50 Cars

SPECIFICATIONS ADOPTED BY THE STATE HIGHWAY DEPARTMENT OF TEXAS, JANUARY 13, 1938, AND APPROVED BY THE PUBLIC ROADS ADMINISTRATION, FEBRUARY 16, 1938, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT:
Special Labor Provisions for Texas Highway Projects, adopted August 11, 1948.

LAYOUT SCALE: 1 IN = 2,000 FT.

CONVENTIONAL SIGNS
STATE OR NATIONAL LINE
CITY OR VILLAGE LINE
COUNTY LINE
RANGE OR SURVEY LINE
RIGHT OF WAY LINE
RIGHT OF WAY MARKER
FENCE LINE
RAILROAD
TRAVELLED WAY
RIVER OR CREEK
TELEGRAPH OR TELEPHONE

PROJ. NO.
COUNTY
HWY. NO.
LETTING DATE
DATE ACCEPTED

CITY OF ROCKWALL
APPROVED: July 12, 1949
B. L. Kirtley
MAYOR

STATE HIGHWAY DEPARTMENT
CORRECT: July 7, 1949
J. A. Smith
JR RESIDENT ENGINEER
RECOMMENDED FOR APPROVAL: July 14, 1949
[redacted]
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL [redacted]
BRIDGE ENGINEER
RECOMMENDED FOR APPROVAL [redacted]
ENGINEER CODE DESIGN
APPROVED [redacted]
ASST. STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL [redacted]
DISTRICT ENGINEER
APPROVED [redacted]

R-913

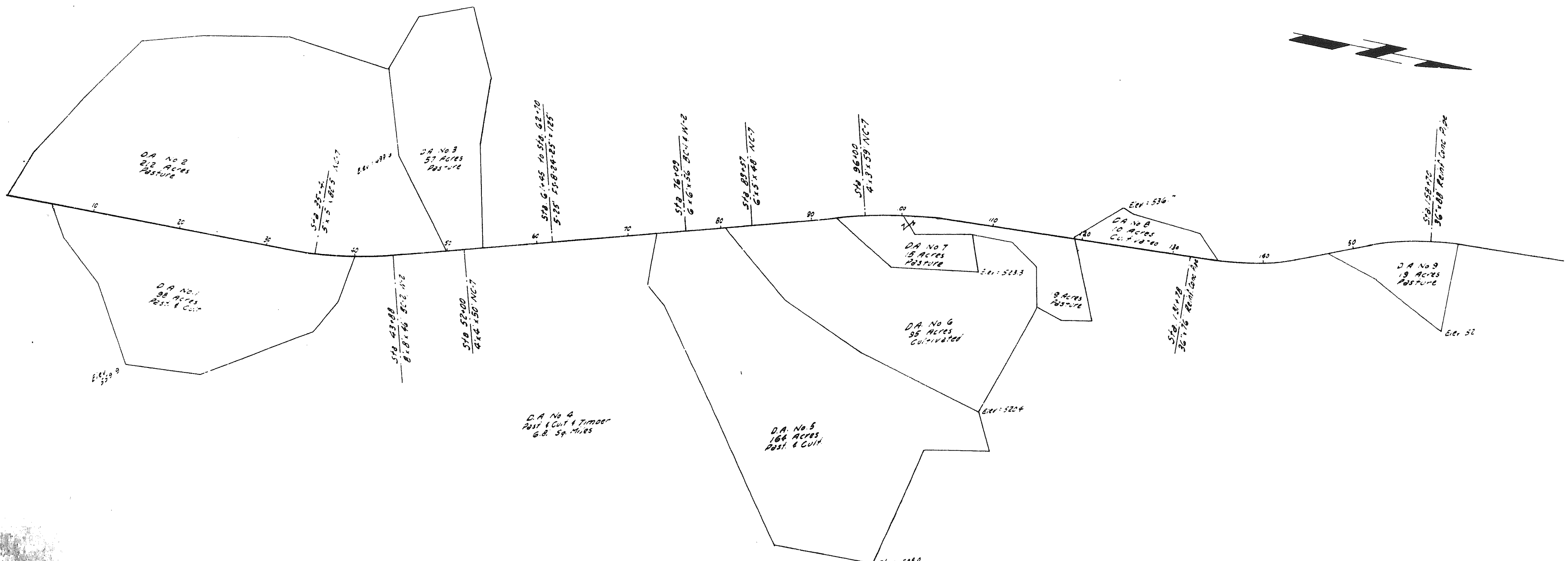
181355

RECOMMENDED FOR APPROVAL: Jan. 22, 1951
Frank Lamkin
DISTRICT ENGINEER

RUNOFF DATA

DA No.	L Feet	V Ft./Sec. (Runoff)	T Min.	C	I In./Hr.	A Acres	Q c.f.s.	Available Water Way Area	[illegible]	STRUCTURE
1	2470	3.78	10.9	0.45	6.5	98	286	25	12.4	5'x5'x805' NC-7
2	3700	3.6	17.1	0.45	5.9	212	509	64	12.6	8'x8'x46' BC-2 & W-2
3	1200'	3.53	5.7	0.40	7.5	57	171	16	11.8	4'x4'x50' NC-7
4	16,368	1.70	160.5	0.30	1.55	4358	2026	1575	[illegible]	5-35' - FS-8-24-25' Spans
5	3900	2.3	28.3	0.60	4.4	164	433	36	[illegible]	6'x6'x56' BC-1 & W-2
6	3200	2.45	21.8	0.60	5.0	95	285	30	11.6	6'x5'x48' NC-7
7	1380	1.31	17.6	0.40	5.2	34	71	12	[illegible]	4'x3'x59' NC-7
8	770	0.93	13.8	0.60	5.8	10	35	7.07	[illegible]	36"x76' Reinf. Conc. Pipe
9	980	2.38	6.9	0.40	6.8	19	51.7	7.07	[illegible]	36"x88' Reinf. Conc. Pipe

10 Year Frequency used for Runoff Calculations for Boxes.
25 " " " " " " Bridge.

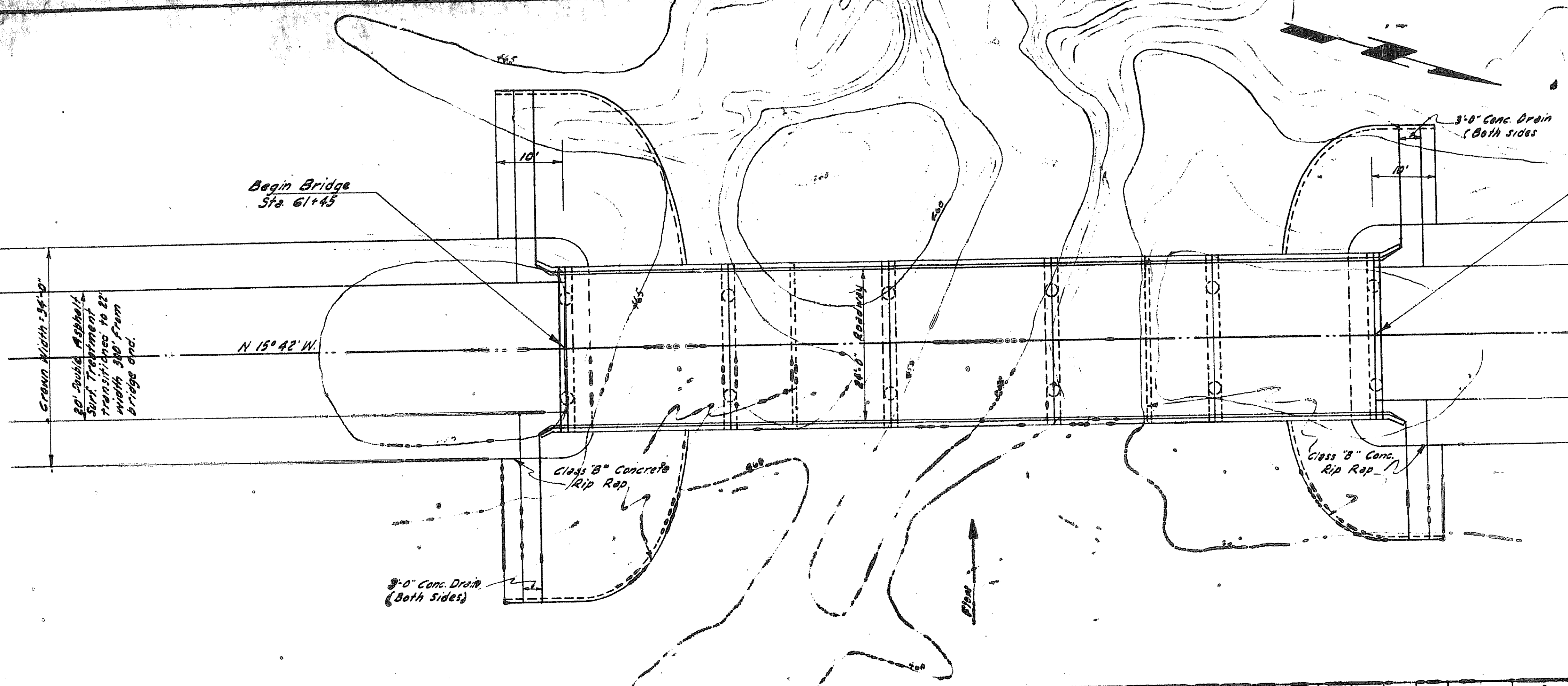


DRAINAGE AREA MAP

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.
6	TEXAS	
STATE DIST. NO.	COUNTY	
18	ROCKWALL	451

STATE	FEDERAL AID PROJECT NO.
TEXAS	

STATE DIST. NO.	COUNTY			
18	Rockwall	481	4	5



HYDRAULIC DATA

Drainage Area : 6.81 Sq. Mi. : 4,358 Ac.
Length : 3.1 Mi. : 16,368 ft.

Texas Board of water Engineers peak flow for Max. Flood : 15,000 c.f.s.

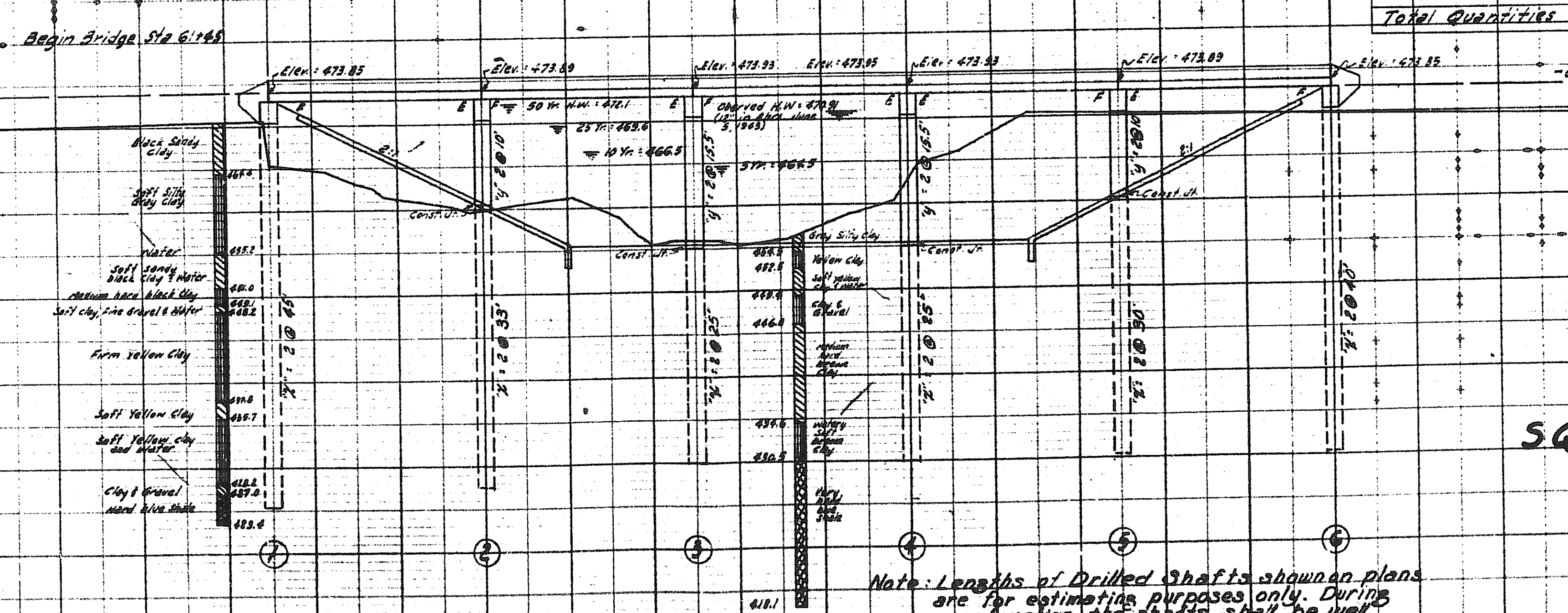
5 Yr. freq. : 7.3% Max. : 1095 c.f.s.
10 Yr. freq. : 10.8% Max. : 1620 c.f.s.
20 Yr. freq. : 15.2% Max. : 2280 c.f.s.
25 Yr. freq. : 17.0% Max. : 2550 c.f.s.
50 Yr. freq. : 23.0% Max. : 3450 c.f.s.
100 Yr. freq. : 30.5% Max. : 4575 c.f.s.

Total opening below H.W. level (25 Yr.) = 1173 ft²
V_{25} = 2.17 ft/sec.

Note: Each bent consists of 2'-0" dia. drilled shafts of the length and number shown on profile. Dimension "X" shall be paid for under item "Drilled Shafts." Dimension "Y" shall be paid for under item "Cl. A" Conc. Columns & Bents."

5 Spans @ 25' = 125'
Total bridge camber = 0.10'

UNIT	Unclass. Struct. Excav. C.Y.	Class "A" Concrete Slabs C.Y.	Class "A" Concrete Columns & Bents C.Y.	Reinf Steel lbs.	2-0 Drilled Shafts L.F.	Class B Conc Rip Rap C.Y.
5-25' Slabs FS-8-24-25		129.0		26,315		
6 Drilled Shaft Bents, FS-8-24-25	20		38.2	7650	396	86.0
4-Wingwalls "F" "S" "8" for Series	1		1.48	138		
Total Quantities	21.0	129.0	39.68	34,103	396	86.0



Embankment to be built to these lines prior to drilling End bent shafts

Slab
0.83 below fin. grade
End Bent Cap
1'-0" 2'-0" 1'-0"
END BENT CAP

Hatched Areas indicate limits of Struct. Excav.

1'-0" 1'-0" Variable
EARWALL

STRUCT. EXCAV. DIAGRAMS

Note: Lengths of Drilled Shafts shown on plans are for estimation purposes only. During construction, the shafts shall be well bedded into the Hard Blue Shale.

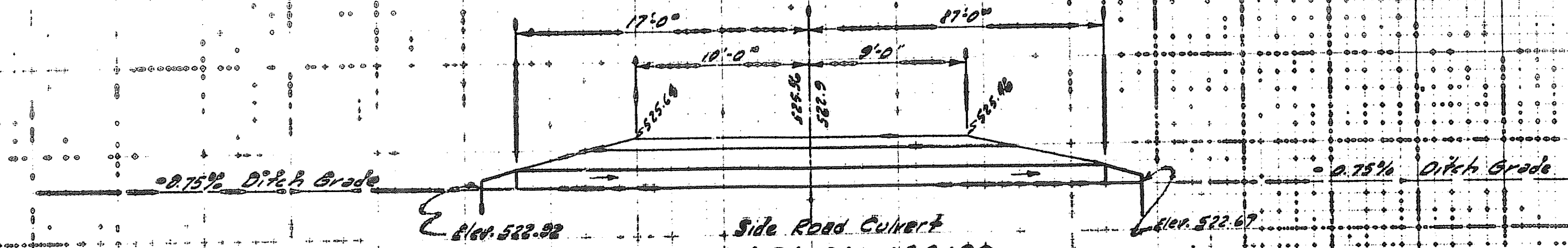
SQUABBLE CREEK BRIDGE
STATE HWY. 205
ROCKWALL COUNTY

STA. 61+45 to STA. 62+70
5-25' FS-8-24-25' SPANS
DRILLED SHAFTS
Scale 1" = 10'

61+00 62+00 63+00

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, NOTE BOOK, NO.

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B. M.S NOTED, STRUCTURE NOTAT. NS CH'KD., BOOK, NO.



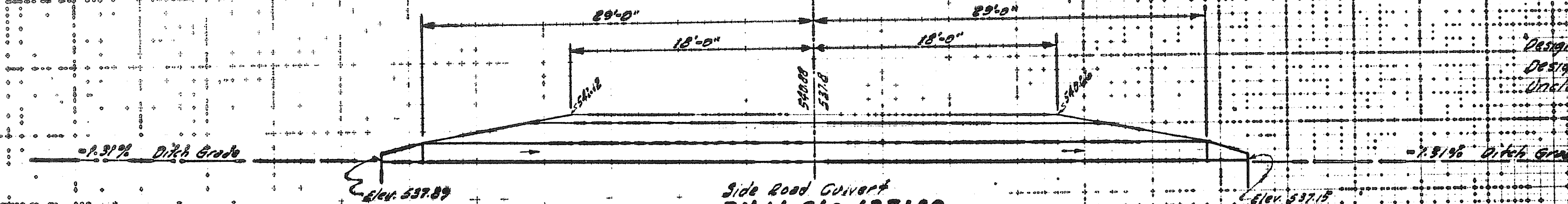
Side Road Culvert

31' Rt. Sta. 146+30

DESIGN #2 x 34' CORR. GALV. METAL PIPE ARCH
2 - METAL END SECTIONS

ESTIMATE OF QUANTITIES

Design #2 Corr. Galv. Metal Pipe Arch	= [illegible] L.F.
Design #2 Metal End Sections	= 2 Ea.
Unclass. Struct. Excavation	= [illegible] C.Y.



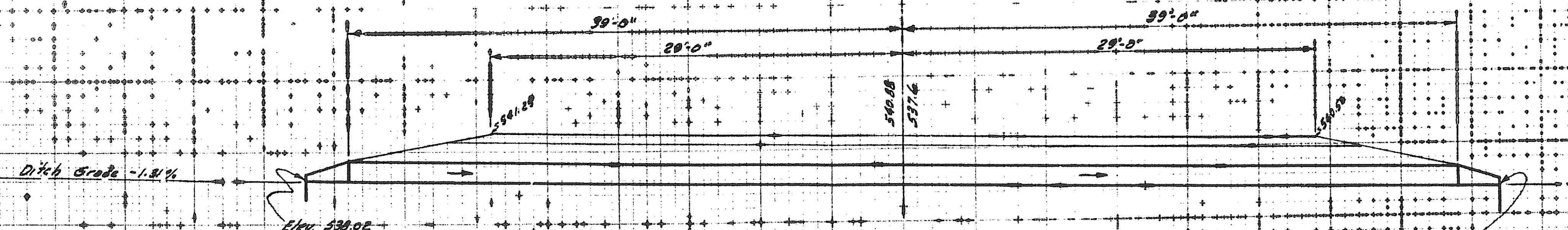
Side Road Culvert

31' Lt. Sta. 127+60

DESIGN #3 x 58' CORR. GALV. METAL PIPE ARCH
2 - METAL END SECTIONS

ESTIMATE OF QUANTITIES

Design #3 Corr. Galv. Metal Pipe Arch	= 56 L.F.
Design #3 Metal End Sections	= 2 Ea.
Unclass. Struct. Excavation	= 2 C.Y.



Side Road Culvert

31' Rt. Sta. 127+60

DESIGN #3 x 78' CORR. GALV. METAL PIPE ARCH
2 - METAL END SECTIONS

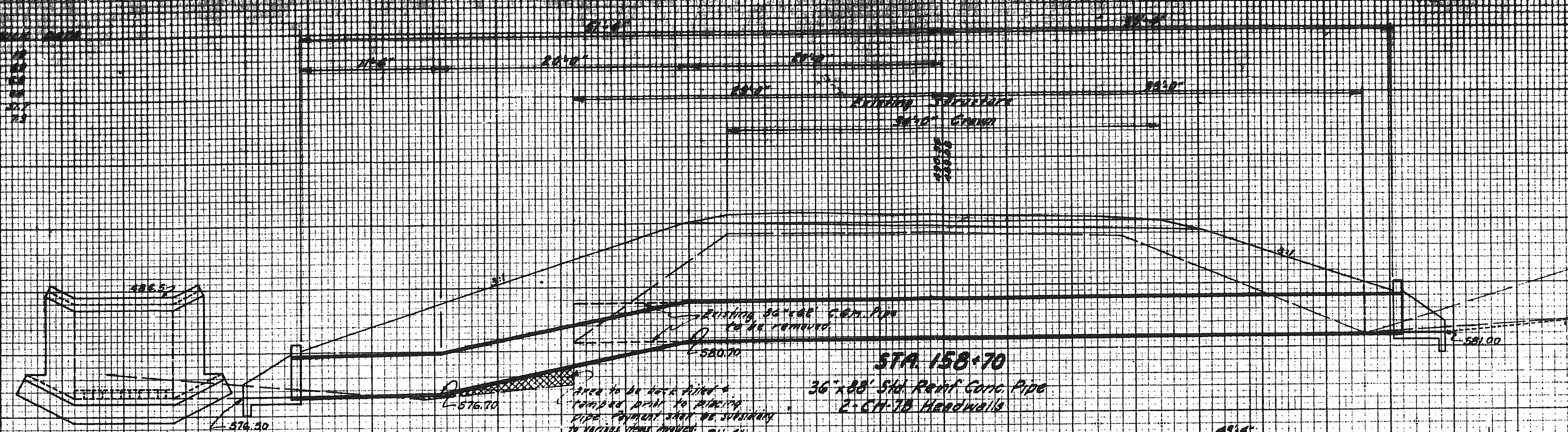
ESTIMATE OF QUANTITIES

Design #3 Corr. Galv. Metal Pipe Arch	= 76 L.F.
Design #3 Metal End Sections	= 2 Ea.
Unclass. Struct. Excavation	= 2 C.Y.

Fed. Road Div. No.	State	Federal Aid Project No.	Sheet No.
6	TEXAS		21

State Dist. No.	County	Control No.	Section No.	Job No.	Highway No.
18	ROCKWALL	451	4	3	205

ORIGINAL SURVEY | NOTE BOOK | NO.



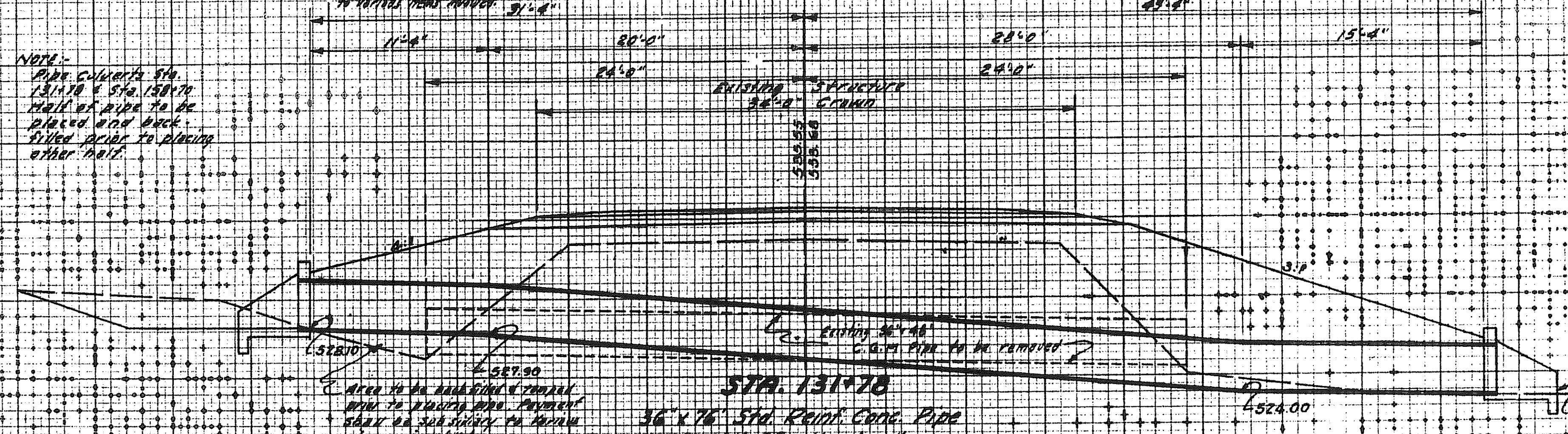
STA. 158+70

36"x88' Std. Reinf. Conc. Pipe
2-CH-78 Headwalls

Estimate of Quantities			
Class "A" Concrete	=	[illegible]	C.Y.
Reinforcing Steel	=	[illegible]	[illegible]
36" Std. Reinf. Conc. Pipe	=	[illegible]	L.F.
Class "B" Conc. Rip Rap	=	[illegible]	C.Y.
Unclass. Struct. Excav.	=	[illegible]	C.Y.
Com. & Spl. Chan. Excav.	=	17	C.Y.
Black Sod (U.S. & D.S.)	=	13	C.Y.

NOTE:- Pipe Culverts Sta. 131+78 & Sta. 158+70 Half of pipe to be placed and back-filled prior to placing other half.

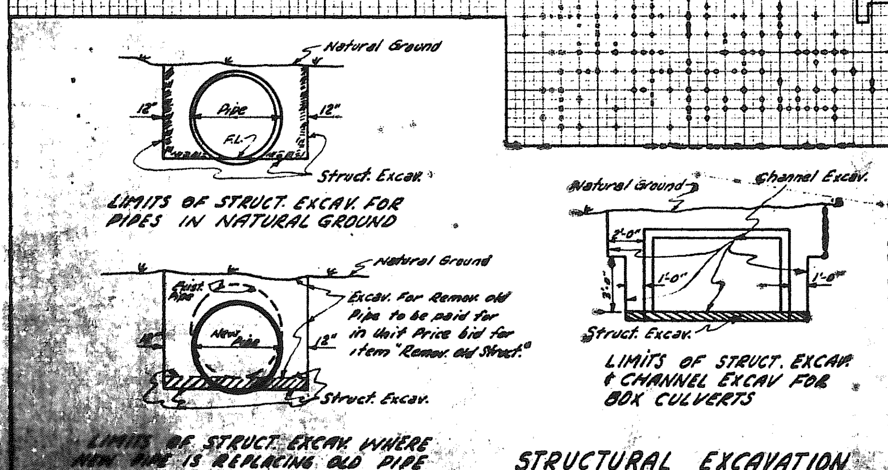
HYDRAULIC DATA
A: 10
L: 12.8
I: 2.8
C: 0.60
Q: 35
V: 3.0



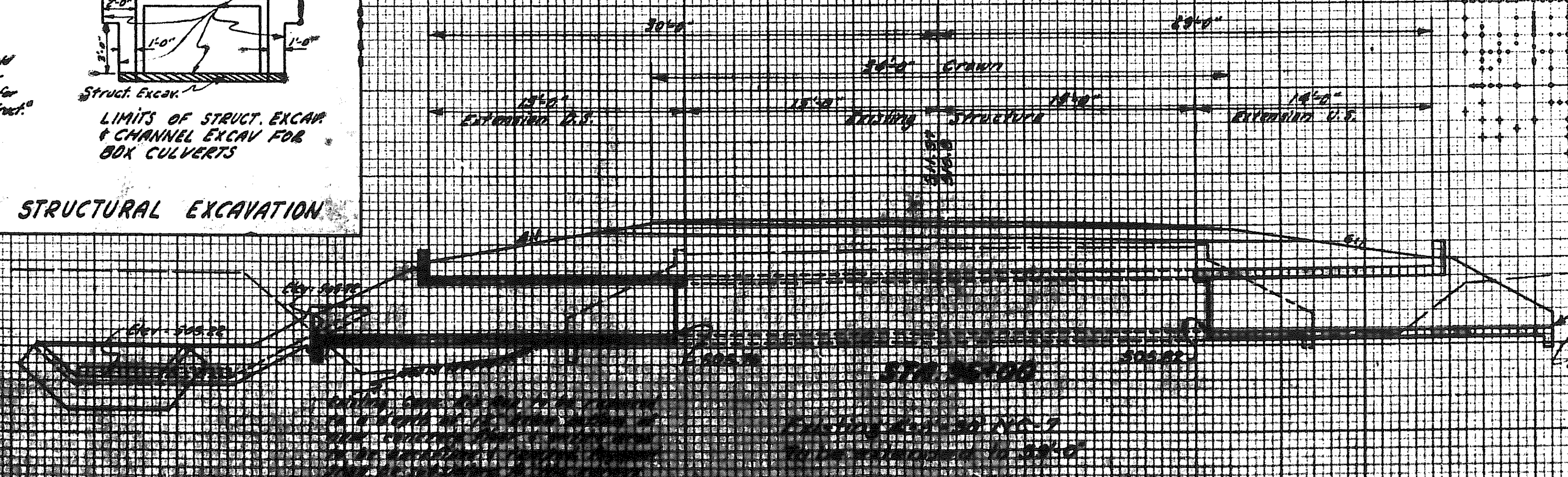
STA. 131+78

36"x76' Std. Reinf. Conc. Pipe
2-CH-78 Headwalls

Estimate of Quantities			
Class "A" Concrete	=	2.78	C.Y.
Reinforcing Steel	=	130	lbs.
36" Std. Reinf. Conc. Pipe	=	76	L.F.
Unclass. Struct. Excav.	=	11.7	C.Y.
Com. & Spl. Chan. Excav.	=	10	C.Y.
Black Sod (U.S. & D.S.)	=	13	C.Y.



STRUCTURAL EXCAVATION

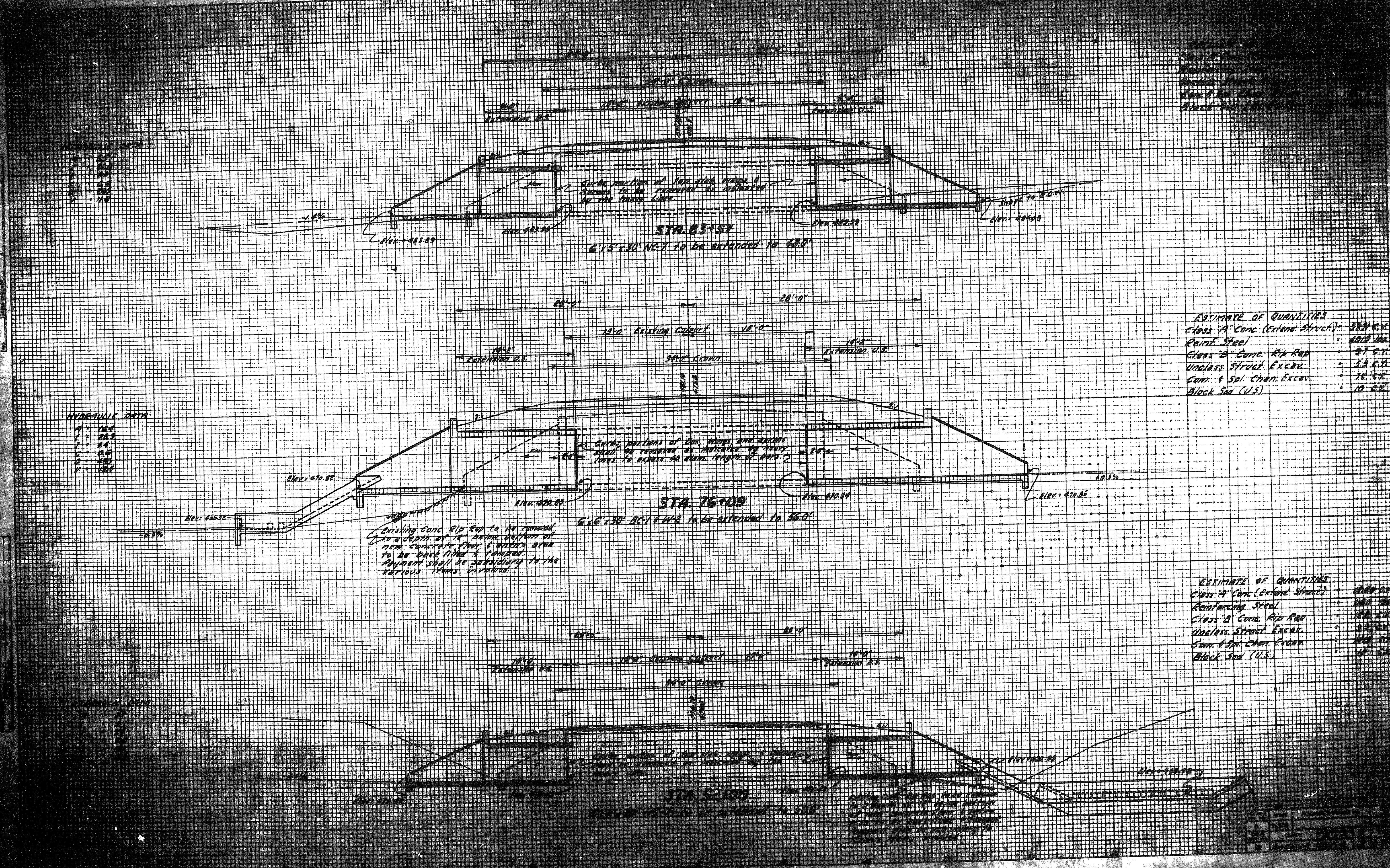


STA. 96+00

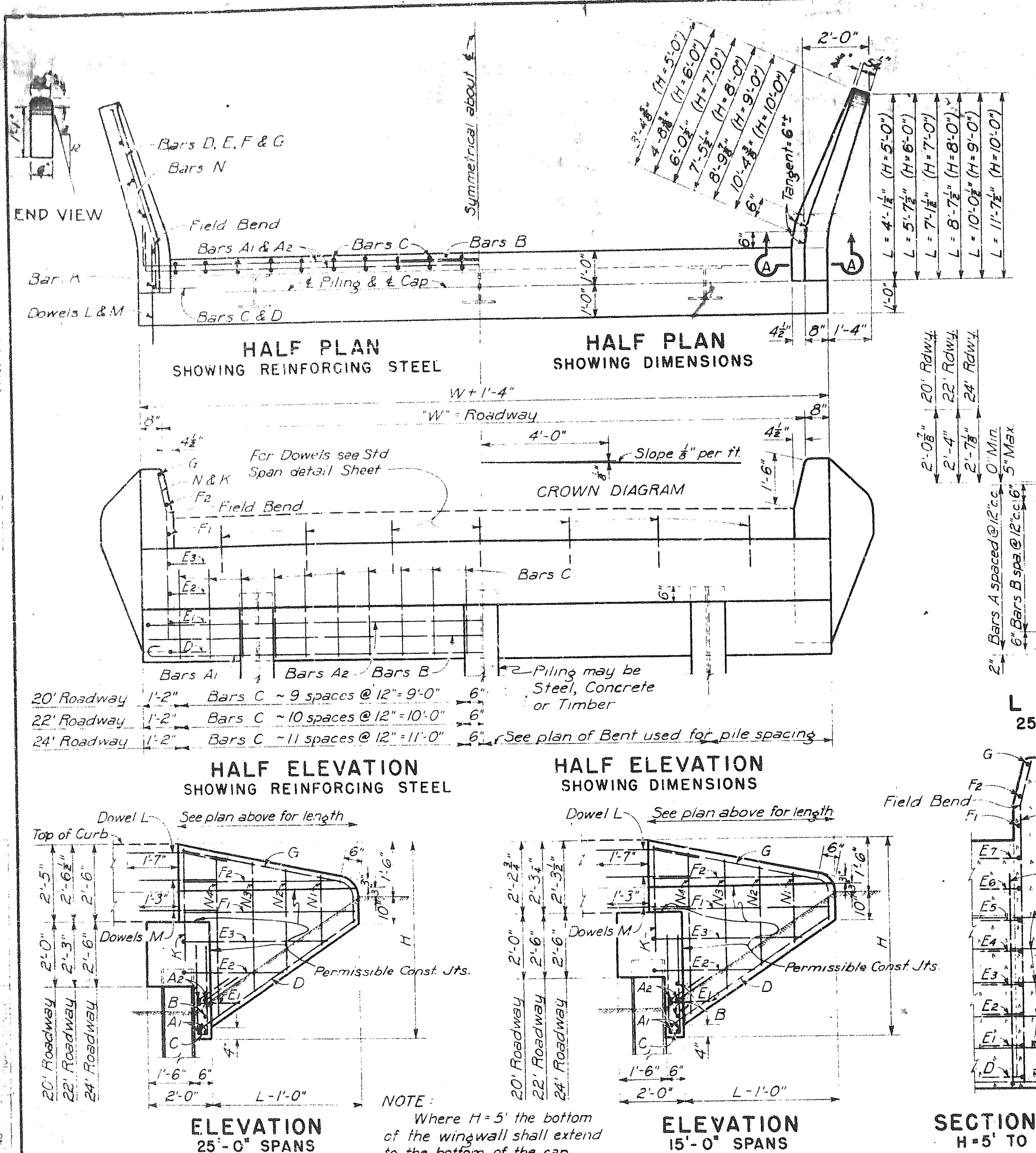
HYDRAULIC DATA [illegible]

Estimate of Quantities			
Class "A" Conc. (Ext. Struct.)	=	11.33	C.Y.
Reinforcing Steel	=	[illegible]	lbs.
Class "B" Conc. Rip Rap	=	6.0	C.Y.
Unclass. Struct. Excav.	=	30	C.Y.
Com. & Spl. Chan. Excav.	=	115	C.Y.
Black Sod (U.S.)	=	10	C.Y.

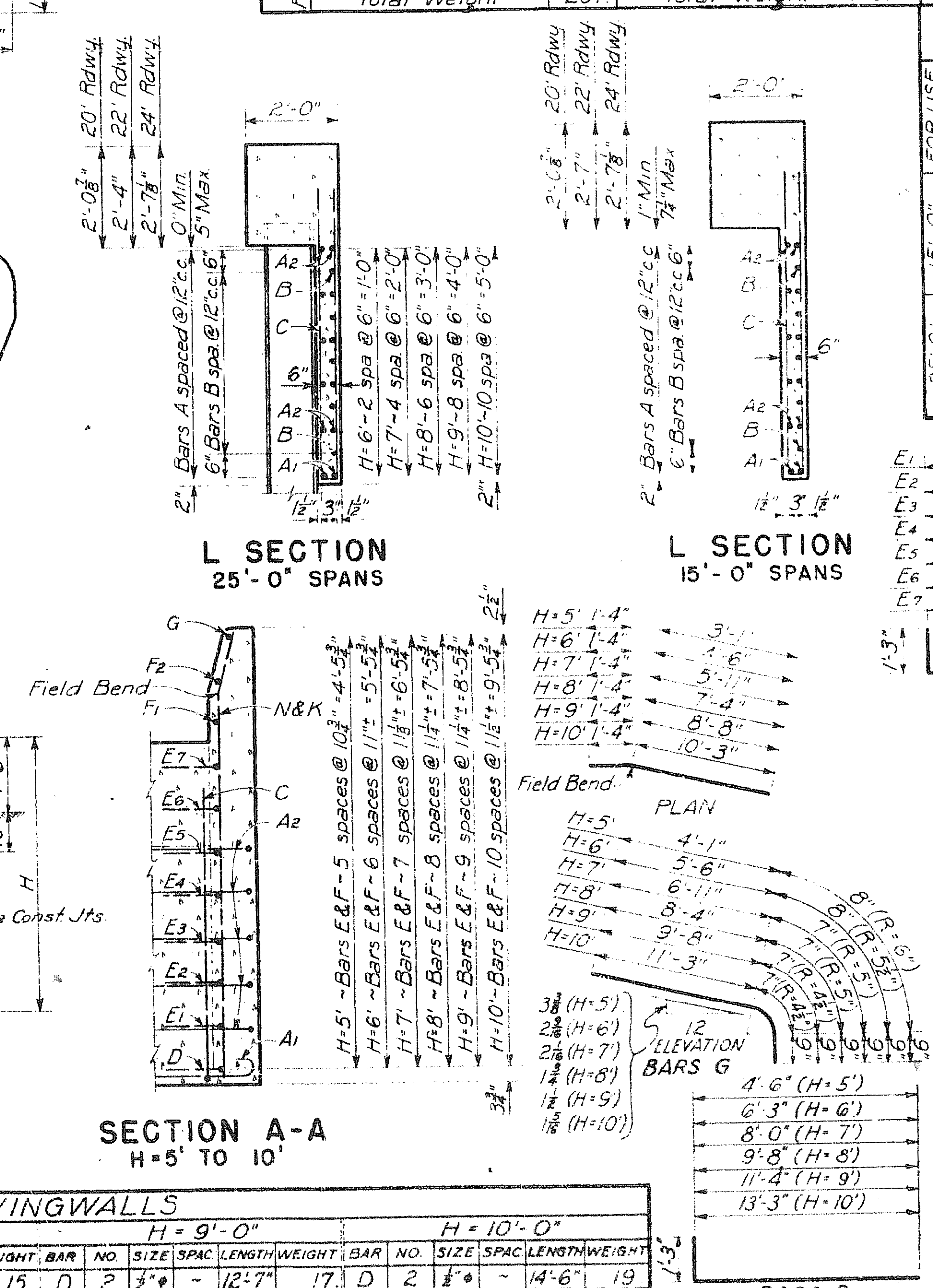
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	
6	TEXAS		
STATE DIST. NO. 18	COUNTY Rockwall	461	[illegible]

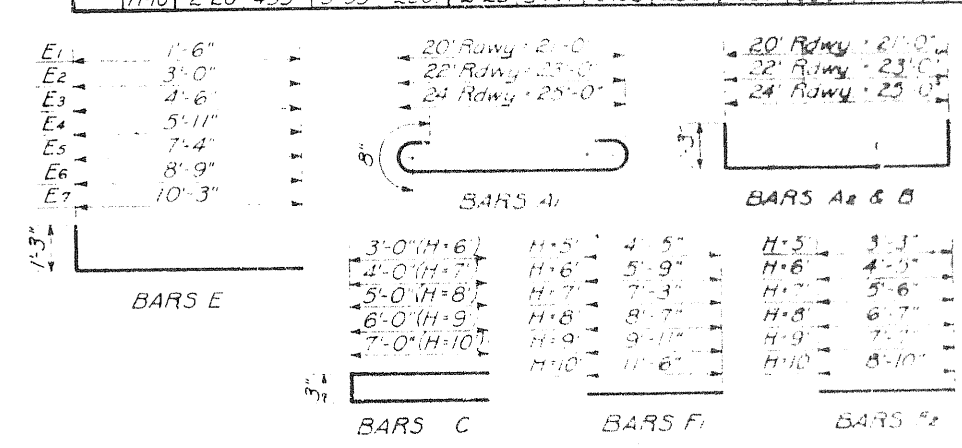


STA. 83+57
6'x5'x30' NC-7 to be extended to 48.0'
Extension D.S.
Extension U.S.
Existing Culvert
Crown
Hydraulic Data
Elev. 483.69
STA. 76+09
6'x6'x30' BC-1 & W-2 to be extended to 56.0'
28'-0"
15'-0" Existing Culvert 15'-0"
14'-2" Extension D.S.
14'-2" Extension U.S.
56'-0" Crown
Curbs, portions of Box, Wings, and aprons shall be removed as indicated by heavy lines to expose 40 diam. length of bars.
Existing Conc. Rip Rap to be removed to a depth of 12" below bottom of new Concrete floor & entire area to be back filled & tamped. Payment shall be subsidiary to the various items involved.
Elev. 470.82
Elev. 470.89
Elev. 470.84
Elev. 470.85
Hydraulic Data
Estimate of Quantities
Class "A" Conc. (Extend Struct.)
Reinf. Steel
Class "B" Conc. Rip Rap
Unclass. Struct. Excav.
Com. & Spl. Chan. Excav.
Block Sod (U.S.)
Estimate of Quantities
Class "A" Conc. (Extend Struct.)
Reinforcing Steel
Class "B" Conc. Rip Rap
Unclass. Struct. Excav.
Com. & Spl. Chan. Excav.
Block Sod (U.S.)
Extension U.S.
Existing Culvert
Extension D.S.
Crown
Hydraulic Data



NOTE: Where H = 5' the bottom of the wingwall shall extend to the bottom of the cap.





BILL OF REINFORCING STEEL FOR ONE BACKWALL

WIDTH	H = 6'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 7'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 8'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
20'-0" ROADWAY	A1	2	½"φ	~	22'-1"	29.	A1	2	½"φ	~	22'-1"	29.	A1	2	½"φ	~	22'-1"	29
	A2	2	½"φ	12"	23'-6"	31.	A2	4	½"φ	12"	23'-6"	63.	A2	6	½"φ	12"	23'-6"	94
	B	1	⅝"φ	12"	23'-6"	25.	B	2	⅝"φ	12"	23'-6"	49.	B	3	⅝"φ	12"	23'-6"	74.
	C	20	½"φ	12"	6'-3"	84.	C	20	½"φ	12"	8'-3"	110.	C	20	½"φ	12"	10'-3"	137.
	Total Weight					169.	Total Weight					251.	Total Weight					334
22'-0" ROADWAY	A1	2	½"φ	~	24'-1"	32.	A1	2	½"φ	~	24'-1"	32.	A1	2	½"φ	~	24'-1"	32
	A2	2	½"φ	12"	25'-6"	34.	A2	4	½"φ	12"	25'-6"	68.	A2	6	½"φ	12"	25'-6"	102
	B	1	⅝"φ	12"	25'-6"	27.	B	2	⅝"φ	12"	25'-6"	53.	B	3	⅝"φ	12"	25'-6"	80.
	C	22	½"φ	12"	6'-3"	92.	C	22	½"φ	12"	8'-3"	121.	C	22	½"φ	12"	10'-3"	151
	Total Weight					185.	Total Weight					274.	Total Weight					365.
24'-0" ROADWAY	A1	2	½"φ	~	26'-1"	35.	A1	2	½"φ	~	26'-1"	35.	A1	2	½"φ	~	26'-1"	35
	A2	2	½"φ	12"	27'-6"	37.	A2	4	½"φ	12"	27'-6"	73.	A2	6	½"φ	12"	27'-6"	110
	B	1	⅝"φ	12"	27'-6"	29.	B	2	⅝"φ	12"	27'-6"	57.	B	3	⅝"φ	12"	27'-6"	86
	C	24	½"φ	12"	6'-3"	100	C	24	½"φ	12"	8'-3"	132.	C	24	½"φ	12"	10'-3"	164
	Total Weight					201.	Total Weight					297.	Total Weight					395.

WIDTH	H = 9'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 10'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
20'-0" ROADWAY	A1	2	½"φ	~	22'-1"	29.	A1	2	½"φ	~	22'-1"	29
	A2	8	½"φ	12"	23'-6"	126.	A2	10	½"φ	12"	23'-6"	157
	B	4	⅝"φ	12"	23'-6"	98.	B	5	⅝"φ	12"	23'-6"	123
	C	20	½"φ	12"	12'-3"	164.	C	20	½"φ	12"	14'-3"	190
	Total Weight					417.	Total Weight					499
22'-0" ROADWAY	A1	2	½"φ	~	24'-1"	32.	A1	2	½"φ	~	24'-1"	32
	A2	8	½"φ	12"	25'-6"	136.	A2	10	½"φ	12"	25'-6"	170
	B	4	⅝"φ	12"	25'-6"	106.	B	5	⅝"φ	12"	25'-6"	133
	C	22	½"φ	12"	12'-3"	180	C	22	½"φ	12"	14'-3"	209
	Total Weight					454	Total Weight					544
24'-0" ROADWAY	A1	2	½"φ	~	26'-1"	35	A1	2	½"φ	~	26'-1"	35
	A2	8	½"φ	12"	27'-6"	147.	A2	10	½"φ	12"	27'-6"	184
	B	4	⅝"φ	12"	27'-6"	115	B	5	⅝"φ	12"	27'-6"	143
	C	24	½"φ	12"	12'-3"	196	C	24	½"φ	12"	14'-3"	228
	Total Weight					493.	Total Weight					590

ESTIMATED QUANTITIES FOR ONE BACKWALL AND TWO WINGWALLS

FOR USE WITH	HEIGHT	20'-0" ROADWAY BACKWALL Class A Concrete Cu Yd	20'-0" BACKWALL Reinf Steel Lb	20'-0" WINGWALLS Class A Concrete Cu Yd	20'-0" WINGWALLS Reinf Steel Lb	22'-0" ROADWAY BACKWALL Class A Concrete Cu Yd	22'-0" BACKWALL Reinf Steel Lb	22'-0" WINGWALLS Class A Concrete Cu Yd	22'-0" WINGWALLS Reinf Steel Lb	24'-0" ROADWAY BACKWALL Class A Concrete Cu Yd	24'-0" BACKWALL Reinf Steel Lb	24'-0" WINGWALLS Class A Concrete Cu Yd	24'-0" WINGWALLS Reinf Steel Lb
15'-0" SPANS	H = 5'	None Required		0.73	69	None Required		0.73	69	None Required		0.73	69
	H = 6'	0.70	169	1.10	92	0.53	185	1.10	92	0.57	201	1.10	92
	H = 7'	1.09	251	1.57	123	0.96	274	1.57	123	1.04	297	1.57	123
	H = 8'	1.49	334	2.13	153	1.40	365	2.13	153	1.51	395	2.13	153
	H = 9'	1.88	417	2.75	184	1.83	454	2.75	184	1.97	493	2.75	184
	H = 10'	2.28	499	3.50	230	2.26	544	3.50	230	2.44	590	3.50	230
25'-0" SPANS	H = 5'	None Required		0.74	69	None Required		0.74	69	None Required		0.74	69
	H = 6'	0.62	169	1.12	92	0.52	185	1.12	92	0.47	201	1.12	92
	H = 7'	1.02	251	1.59	123	0.95	274	1.59	123	0.94	297	1.59	123
	H = 8'	1.42	334	2.15	153	1.39	365	2.15	153	1.41	395	2.15	153
	H = 9'	1.81	417	2.77	184	1.82	454	2.77	184	1.88	493	2.77	184
	H = 10'	2.20	499	3.53	230	2.25	544	3.53	230	2.35	590	3.53	230

BARS N

Bar	Length	Used for
N1	1'-11"	H = 5' to 10'
N2	2'-7"	H = 5' to 10'
N3	3'-4"	H = 5' to 10'
N4	4'-0"	H = 5' & 7'
N4	4'-2"	H = 6' & 8' to 10'
N5	4'-9"	H = 7', 8' & 10'
N5	5'-0"	H = 6' & 9'
N6	5'-5"	H = 7' & 10'
N6	5'-8"	H = 8' & 9'
N7	6'-2"	H = 7' & 10'
N7	6'-5"	H = 8' & 9'
N8	7'-0"	H = 10'
N8	7'-2"	H = 8' & 9'
N9	7'-8"	H = 10'
N9	8'-1"	H = 9'
N10	8'-5"	H = 10' only
N11	9'-1"	H = 10' only

GENERAL NOTES:

Design: Designed for use with Standard Slab Spans FS-8-(20 to 24)-15 and FS-8(20 to 24)-25.

All concrete shall be Class A. Chamfer all exposed corners ¾" unless specified otherwise.

All dimensions relating to reinforcing steel are to centers of bars.

BILL OF REINFORCING STEEL FOR TWO WINGWALLS

H = 5'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 6'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 7'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
D	2	½"φ	~	5'-9"	8.	D	2	½"φ	~	7'-6"	10.	D	2	½"φ	~	9'-3"	12.
E1-2	4	½"φ	10¾"	Av. 3'-6"	9.	E1-3	6	½"φ	11"	Av. 4'-3"	17.	E1-4	8	½"φ	11⅛"	Av. 5'-0"	27
F1-2	4	½"φ	10¾"	Av. 3'-10"	10.	F1-2	4	½"φ	11"	Av. 5'-1"	14.	F1-2	4	½"φ	11⅛"	Av. 6'-5"	17.
G	2	½"φ	~	5'-6"	7.	G	2	½"φ	~	6'-11"	9.	G	2	½"φ	~	8'-3"	11.
N1-4	8	½"φ	11"	Av. 3'-0"	16.	N1-5	10	½"φ	11½"	Av. 3'-5"	23.	N1-7	14	½"φ	10¾"	4'-0"	37
K	2	½"φ	~	3'-7"	5.	K	2	½"φ	~	3'-7"	5.	K	2	½"φ	~	3'-7"	5.
L	2	⅝"φ	~	3'-2"	7.	L	2	⅝"φ	~	3'-2"	7	L	2	⅝"φ	~	3'-2"	7.
M	4	½"φ	10¾"	2'-6"	7.	M	4	½"φ	11"	2'-6"	7	M	4	½"φ	11⅛"	2'-6"	7.
Total Weight					69.	Total Weight					92.	Total Weight					123.

H = 8'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 9'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT	H = 10'-0" BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
D	2	½"φ	~	10'-11"	15.	D	2	½"φ	~	12'-7"	17.	D	2	½"φ	~	14'-6"	19.
E1-5	10	½"φ	11¼"	Av. 5'-8"	38.	E1-6	12	½"φ	11¼"	Av. 6'-5"	51.	E1-7	14	½"φ	11⅜"	Av. 7'-2"	67.
F1-2	4	½"φ	11¼"	Av. 7'-7"	20.	F1-2	4	½"φ	11¼"	Av. 8'-9"	23.	F1-2	4	½"φ	11⅜"	Av. 10'-2"	27.
G	2	½"φ	~	9'-8"	13.	G	2	½"φ	~	11'-0"	15.	G	2	½"φ	~	12'-7"	17.
N1-8	16	½"φ	11¼"	Av. 4'-6"	48.	N1-9	18	½"φ	12"	Av. 4'-11"	59.	N1-11	22	½"φ	11⅜"	Av. 5'-6"	81.
K	2	½"φ	~	3'-7"	5.	K	2	½"φ	~	3'-7"	5.	K	2	½"φ	~	3'-7"	5
L	2	⅝"φ	~	3'-2"	7.	L	2	⅝"φ	~	3'-2"	7.	L	2	⅝"φ	~	3'-2"	7
M	4	½"φ	11¼"	2'-6"	7.	M	4	½"φ	11¼"	2'-6"	7.	M	4	½"φ	11⅜"	2'-6"	7
Total Weight					153.	Total Weight					184.	Total Weight					230

NOTE:

Backwalls may be used only on Std. square bridges of not more than 100' in length on which all expansion joints in the slabs are omitted. The details shown on this sheet are for Abutments supported on three or more piles or columns.

Backwalls shall not be used on Skewed Bridges. Wing walls as shown on this sheet may be used on any Std. Square FS-8 SLAB SPAN.

TEXAS HIGHWAY DEPARTMENT

BACKWALL AND WINGWALLS

FOR 15' & 25' SLAB SPANS (FS SERIES).

20', 22', & 24' RDWY. 8" CURBS

DRAWING	STATE	COUNTY	SHEET NO.
Original	TEXAS	Rockwall	33
18		451 1 3	245

NOTE ADDED 3-15-48 OCK

R-913